EURO mini

Installation Manual

CASTLE
care·tech

2x

RINS1211-4

Contents Page

System Overview ***4***

Technical Specification ***5***

Overview ***6***

The Control Panel 6
The Printed Circuit Board 7
The Tamper Spring and Connections 8

Connections ***9***

Transformer / Battery Connection 9
Keypad Connection 10
Reader Connection 11
Double Pole - Alarm Connections 12
Double Pole - Tamper Connections 12
DEOL: 4K7 Alarm, 2K2 Tamper 13
DEOL: 4K7 Alarm, 4K7 Tamper 13
Siren Connection 14
Speaker Connection 14
Output Connection/Example 15

Compliance Statement and Warranty ***16***

Compliance Statement 16
Warranty 16

Input Table Appendix ***17***

Inputs on main control panel	10 fully programmable inputs

Input configuration	Double end of line (4K7 Alarm, 2K2 Tamper) Double end of line (4K7 Alarm, 4K7 Tamper) Double Pole

Input Types	Unused, Fire, Hold Up, 24 Hour, Intruder, Final Exit, Entry Route, ER (FX in part), FX (ER in part), Keyswitch Latched, Keyswitch Pulsed

Programmable Outputs	PGM, Bell, Strobe + 4 Outputs on Inputs 7,8,9 and 10 (programmed either as an input or output)

Output Types	Not Used, Fire, Hold Up Any, Intruder Any, Tamper Any, Set Fail, Entry Deviation, Siren Any, Strobe Any, Exit Starts Any, Final Set Any, Strobe Set Fail, Keyswitch Unset, Entry/Exit, Lights, Restore 1, Restore 2, PIR Latch 1, PIR Latch 2, Mains Good, Detr Indn Enable, Follow Test, Off During Test, Detr Walk Test, Mains Fail, Battery Fault, Low Volts, Global Fault 1, Global Fault 2, Engineer Access

Keypad	Contemporary LCD Keypad 32 Character

Number of Keypads	4

Arming Options	Timed, Final Door, Timed/Final

User Codes	30 user codes, 1 Master Manager, 1 Engineer

Logs	500 Mandatory, 200 Optional

Fuses	AUX, Bell, RS485 Bus, Battery

Tampers	Case Tamper and Siren Tamper

Technical Specification

Electrical Specification	
Supply Voltage (A.C.)	18VAC Nominal (+-20%), 50Hz (+-10%)
Supply Voltage (D.C.)	12VDC Nominal (10-15 Volt DC Range)
Power Supply	1A Regulated
Supply Current	<80mA Quiescent (DC supply, no active outputs)
Internal battery charger	800mA continous, 13.68V nominal (fold-back current limited)
Battery supply protection	Reverse polarity protected
Battery final disconnect voltage	10.5V
Zone inputs	0-20V, normally closed, normally open, double balanced circuits
PGM/SAB outputs	Switched negative 1Ah (max)
Shared PGM outputs	Switched negative 50mA (max)
SAB/AUX supply fuses	800mA quick-blow
Battery reverse protection fuse	1.6A slow-blow
Mains Fuse	Mains Fuse - Anti-Surge 315mA

Physical/Mechanical Specification	
Dimensions	250 x 297 x 82mm
Weight	3.07 kilos

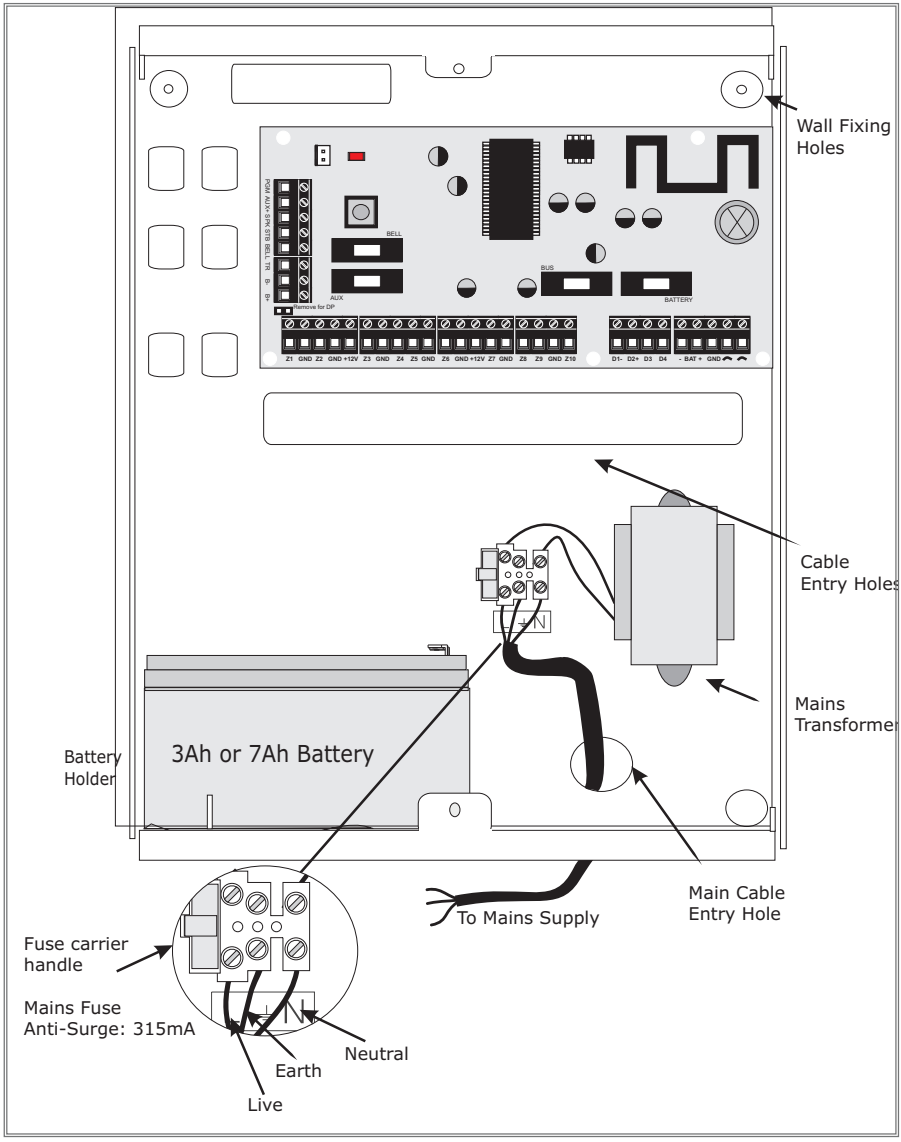
Environmental Specification	
Operational temperature range	-20°C to +60°C
Storage temperature range	-20°C to +60°C

Electrical Rating: 1A. EN50131-6:1997 rating: 875mA when used in Grade 1 system, 465mA when used in Grade 2 system

Battery recommend 3Ah or 7Ah (Max)

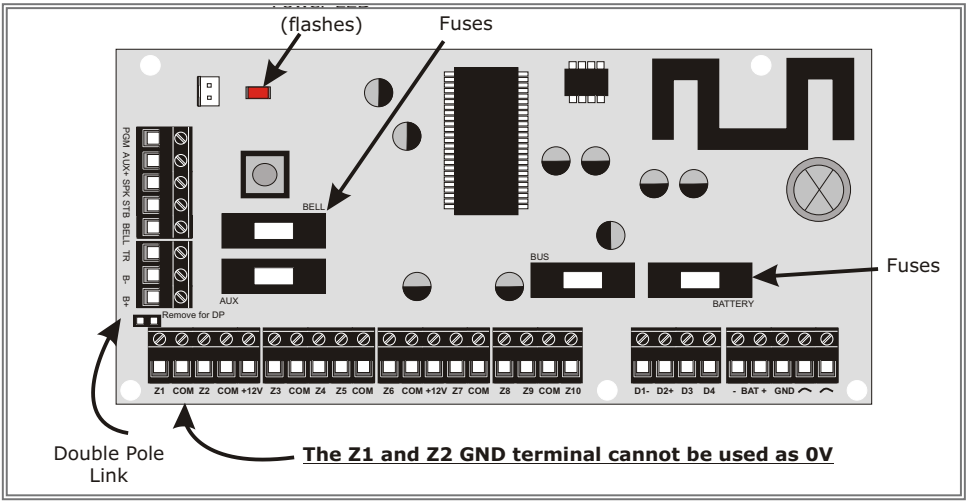
The EURO mini is already fully assembled in a metal case. The diagram below shows a basic overview of the different components.

The Control Panel



The EURO **mini** printed circuit board is as follows:

The Printed Circuit Board

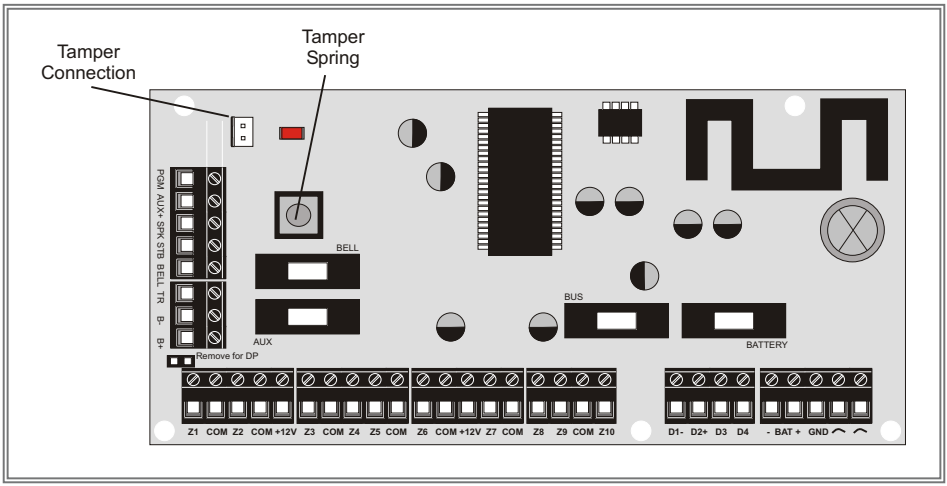

(flashes)
Fuses
PGM AUX+ SPK STB BELL TR B- B+
BELL
AUX
BUS
BATTERY
Fuses
Remove for DP
Z1 COM Z2 COM +12V Z3 COM Z4 Z5 COM Z6 COM +12V Z7 COM Z8 Z9 COM Z10
D1- D2+ D3 D4 - BAT + GND
Double Pole Link
The Z1 and Z2 GND terminal cannot be used as 0V

PGM	Output 1	Z6	Input 6
AUX+	+12V Supply	COM	0V/Common
SPK	Speaker Output	+12V	+12V Supply
STB	Output 2	Z7	Input 7 / Output 4
BELL	Output 3	COM	0V/Common
TR	Siren Tamper Return	Z8	Input 8 / Output 5
B-	0V	Z9	Input 9 / Output 6
B+	+12V Supply	COM	0V/Common
Z1	Input 1	Z10	Input 10 / Output 7
COM	***Common Only***	D1-	RS485 Bus: 0V
Z2	Input 2	D2+	RS485 Bus: +12V
COM	0V/Common	D3	RS485 Bus: Data A
+12V	+12V Supply	D4	RS485 Bus: Data B
Z3	Input 3	-BAT	Battery Negative
COM	0V/Common	BAT+	Battery Positive
Z4	Input 4	GND	Earth
Z5	Input 5	~	17V Input
COM	0V/Common	~	17V Input

The EURO **mini** printed circuit board is protected by a metal casing. The lid is tampered by a spring that is connected to the printed circuit board.

To disable the tamper spring, simply link out the tamper connections shown below.

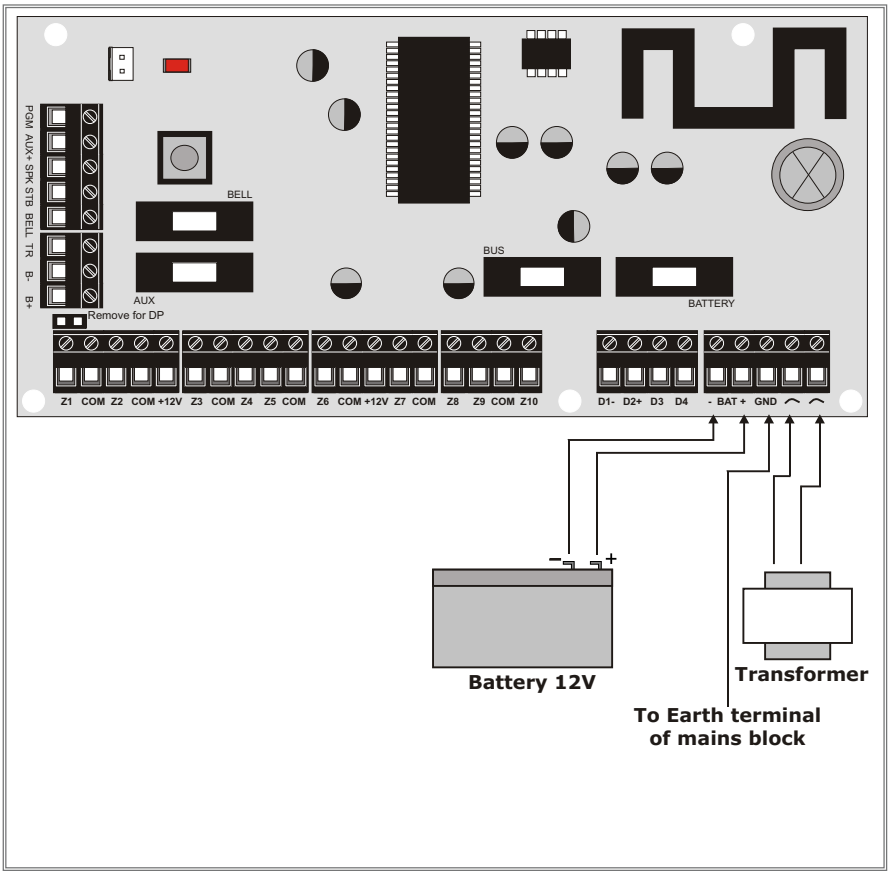
The Tamper Spring and Connections


Tamper Connection
Tamper Spring
PGM AUX+ SPK STB BELL TR B- B+
BELL
AUX
BUS
BATTERY
Remove for DP
Z1 COM Z2 COM +12V Z3 COM Z4 Z5 COM Z6 COM +12V Z7 COM Z8 Z9 COM Z10
D1- D2+ D3 D4
- BAT + GND

The transformer will be factory fitted to the connections shown below on the EURO **mini.**

It is recommended that a 3Ah or 7Ah battery should be used on the EURO **mini.** This connects to the Battery positive and negative terminals.

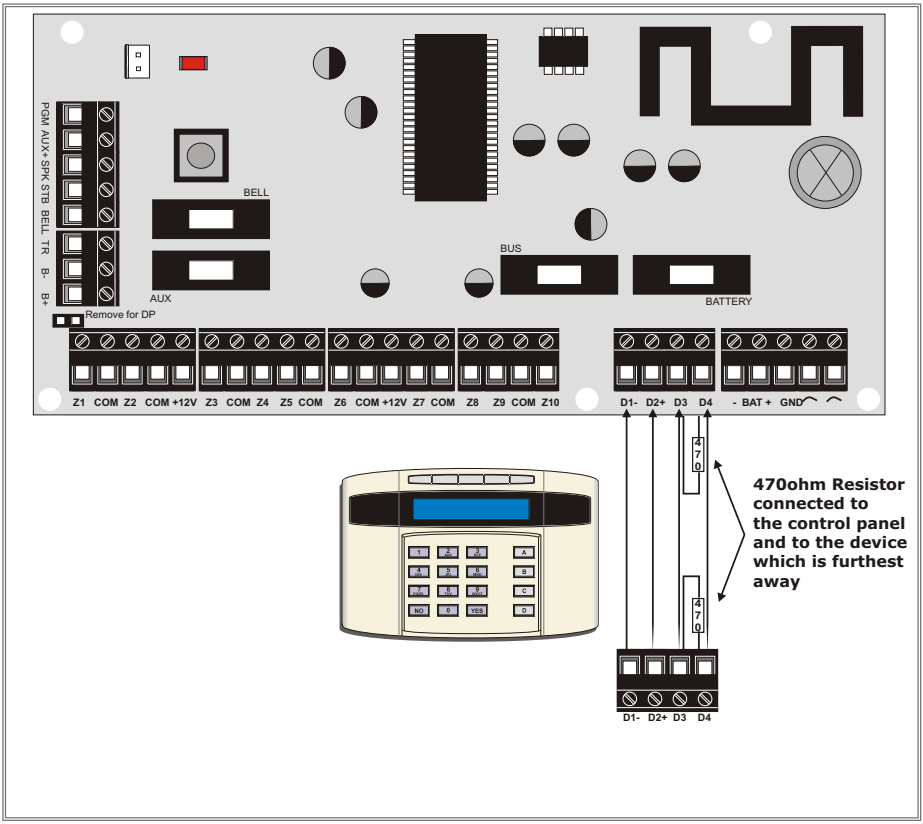
Transformer / Battery Connection


PGM AUX+ SPK STB BELL TR B- B+
BELL
AUX
Remove for DP
BUS
BATTERY
Z1 COM Z2 COM +12V Z3 COM Z4 Z5 COM Z6 COM +12V Z7 COM Z8 Z9 COM Z10
D1- D2+ D3 D4 - BAT + GND
Battery 12V
Transformer
To Earth terminal
of mains block

A maximum of 4 keypads may be installed to the EURO **mini**. Each keypad (EUR-068 or EUR-069) connects to the RS485 terminal: D1-, D2+, D3 and D4.

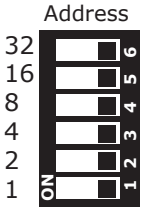
Each keypad must be individually addressed, starting with 00. To do this, press and hold the 'D' key, until 'KEYPAD CODE' is displayed. Enter '2000' and select the appropriate address. Press the 'YES' key to change any other required options, and the 'A' key to save the data.

Keypad Connection


PGM AUX+ SPK STB BELL TR B- B+
BELL
AUX
BUS
BATTERY
Remove for DP
Z1 COM Z2 COM +12V Z3 COM Z4 Z5 COM Z6 COM +12V Z7 COM Z8 Z9 COM Z10
D1- D2+ D3 D4
- BAT + GND
470
470
470ohm Resistor connected to the control panel and to the device which is furthest away
D1- D2+ D3 D4

A maximum of 3 readers may be installed to the EURO **mini** if the EUR-068 is installed. Each connect to the RS485 terminal: D1-, D2+, D3 and D4.

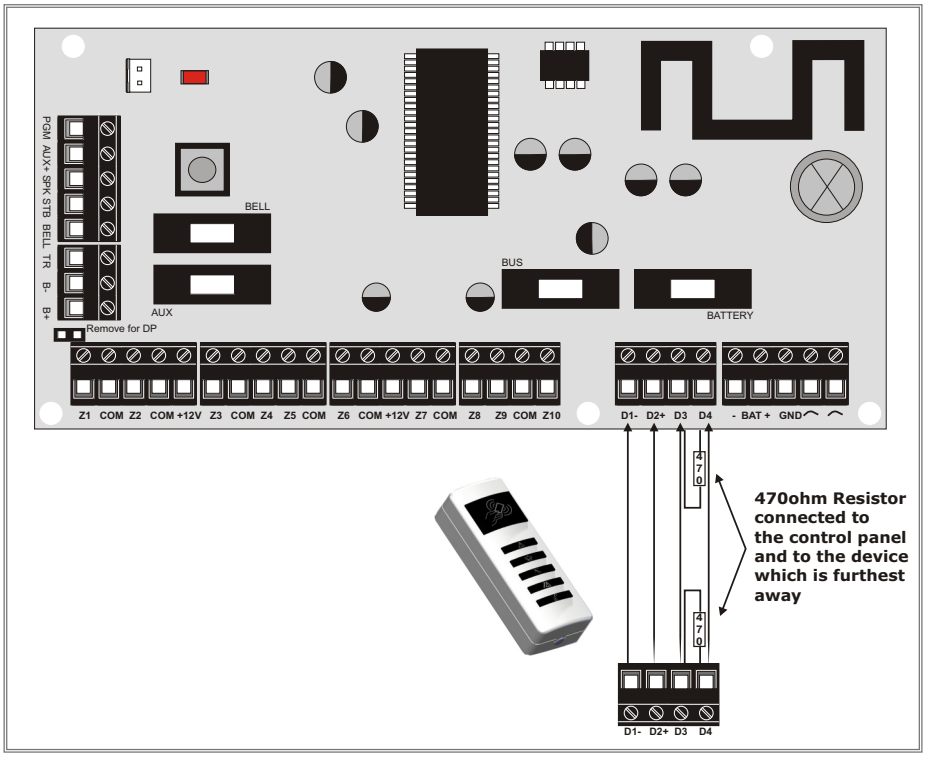
Each reader must be individually addressed, starting with 01. To do this, there are dip switches on the back of the reader.



To address the reader as 02 for example, dip switch "2" must be selected to the right (towards the address number)

To address the reader as 01 for example, dip switch "1" must be selected to the right (towards the address number)

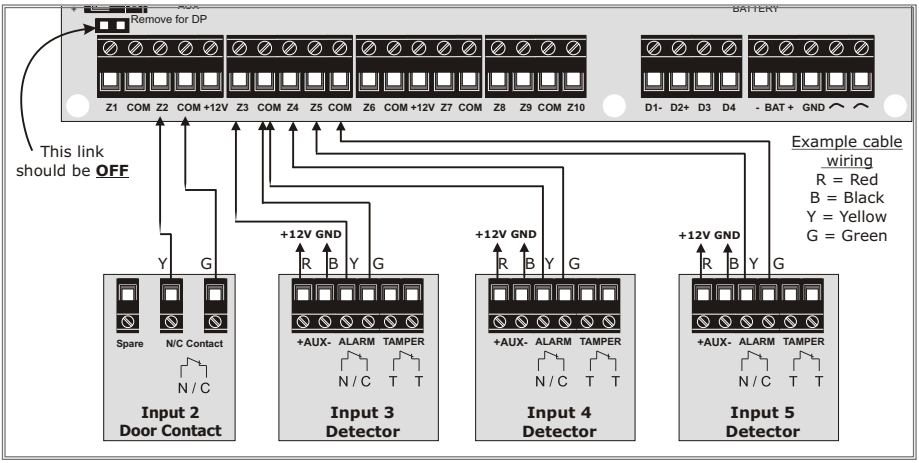
Reader Connection


PGM AUX+ SPK STB BELL TR B- B+
BELL
AUX
BUS
BATTERY
Remove for DP
Z1 COM Z2 COM +12V Z3 COM Z4 Z5 COM Z6 COM +12V Z7 COM Z8 Z9 COM Z10
D1- D2+ D3 D4 - BAT + GND
470
470
470ohm Resistor connected to the control panel and to the device which is furthest away
D1- D2+ D3 D4

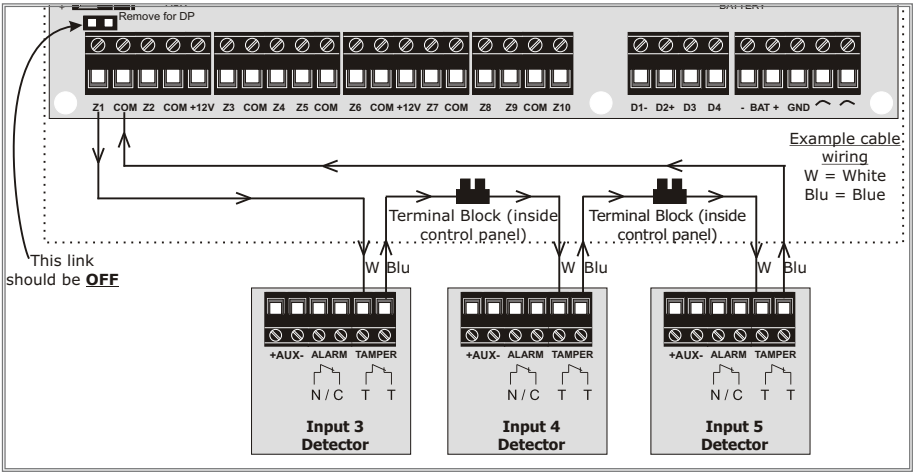
If double pole is used, the link above input 1 (shown below) needs to be open. Double pole requires no resistors, but it requires a dedicated tamper circuit (When a clean start 2002 is performed, input 1 is defaulted as tamper).

The first diagram below shows the connection of door contacts/detectors to the EURO **mini**, the second diagram shows how the tamper circuits of each detector should be connected. The diagrams are split for clearer wiring connections. Please note that any 'terminal blocks' used should be located inside the control panel.

Double Pole - Alarm Connections

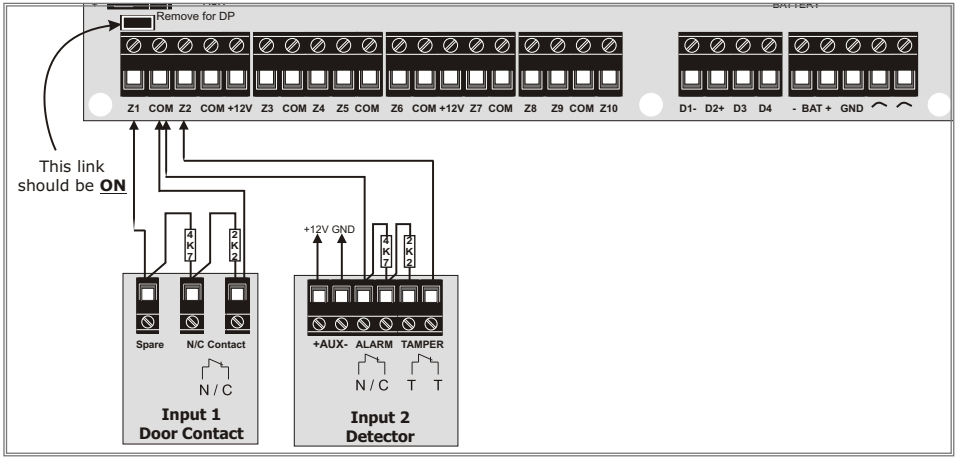

Remove for DP
Z1 COM Z2 COM +12V Z3 COM Z4 Z5 COM Z6 COM +12V Z7 COM Z8 Z9 COM Z10
D1- D2+ D3 D4 - BAT + GND
This link should be OFF
Example cable wiring
R = Red
B = Black
Y = Yellow
G = Green
+12V GND
Y G
R B Y G
Spare N/C Contact
N/C
+AUX- ALARM TAMPER
N/C T T
Input 2 Door Contact
Input 3 Detector
Input 4 Detector
Input 5 Detector

Double Pole - Tamper Connections

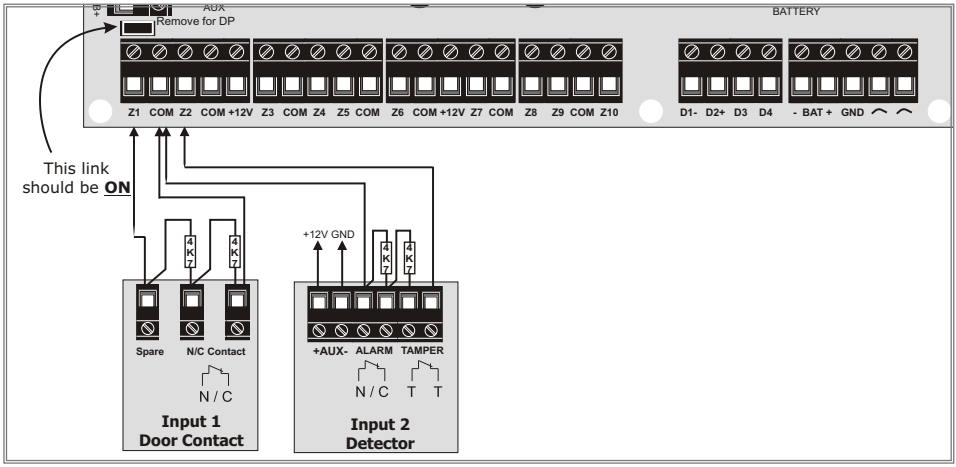

Remove for DP
Z1 COM Z2 COM +12V Z3 COM Z4 Z5 COM Z6 COM +12V Z7 COM Z8 Z9 COM Z10
D1- D2+ D3 D4 - BAT + GND
Example cable wiring
W = White
Blu = Blue
Terminal Block (inside control panel)
Terminal Block (inside control panel)
This link should be OFF
W Blu
+AUX- ALARM TAMPER
N/C T T
Input 3 Detector
Input 4 Detector
Input 5 Detector

If double end of line is used, the link above input 1 (shown below) needs to be closed, and specific resistors need to be used depending on which mode is selected (see Choose Mode in the programming manual). There are 2 choices:

DEOL: 4K7 Alarm, 2K2 Tamper



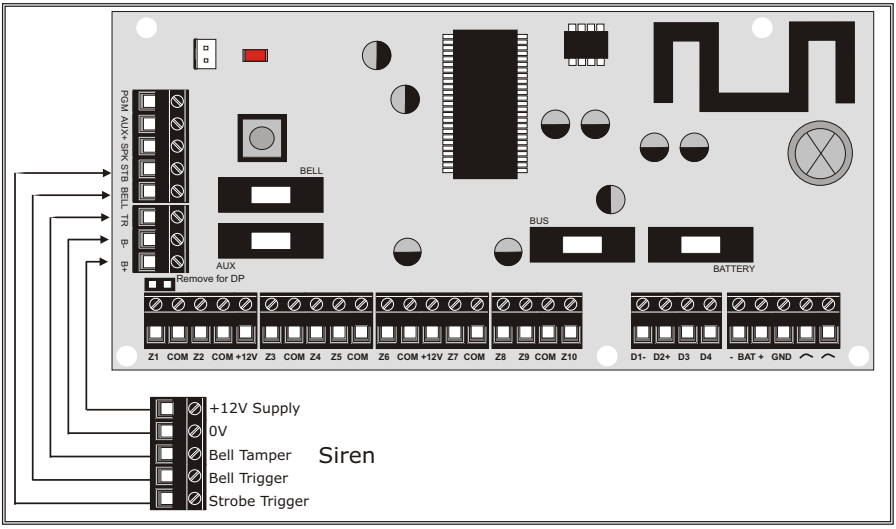
DEOL: 4K7 Alarm, 4K7 Tamper



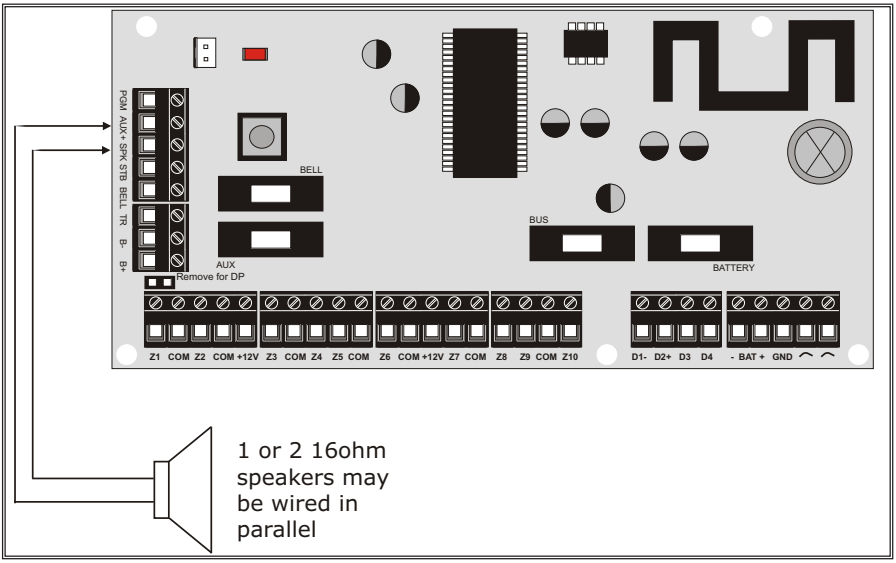
The connections for a +12V Siren are described below, at default all outputs are negative applied and this cannot be altered.

There is also a connection for 1 or 2 16ohm speakers, which will follow the keypad sounds.

Siren Connection



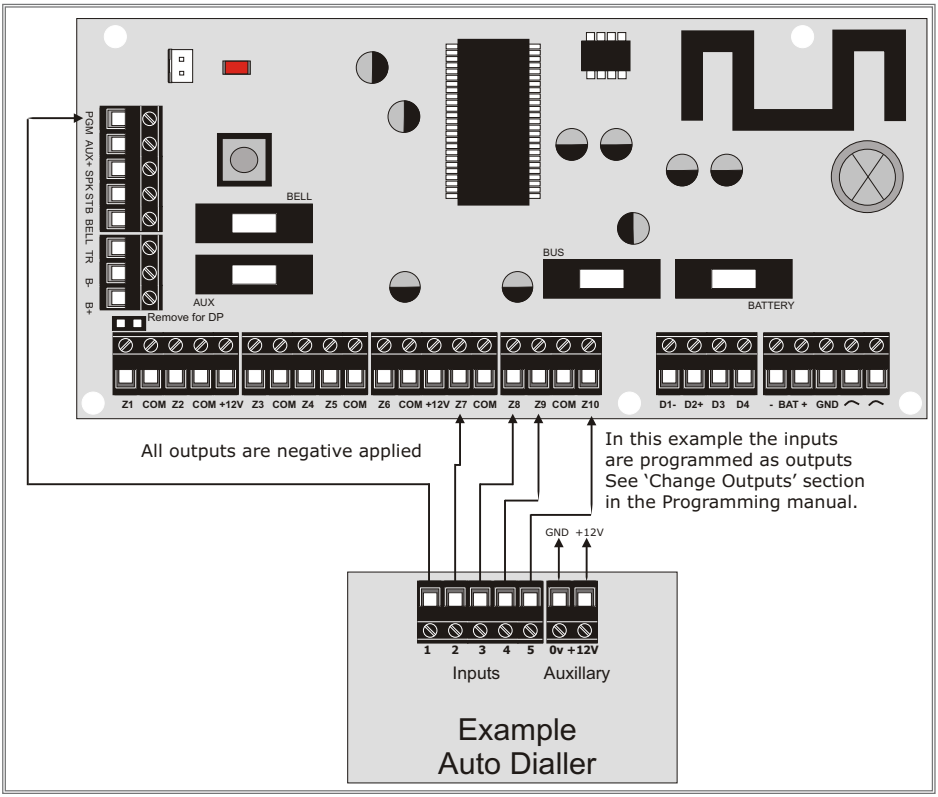
Speaker Connection


PGM AUX+ SPK STB BELL TR B- B+
BELL
AUX
Remove for DP
BUS
BATTERY
Z1 COM Z2 COM +12V Z3 COM Z4 Z5 COM Z6 COM +12V Z7 COM Z8 Z9 COM Z10
D1- D2+ D3 D4 - BAT + GND
1 or 2 16ohm speakers may be wired in parallel

The EURO **mini** supports up to 7 outputs. 4 of the outputs are shared with inputs on the system, therefore if the outputs are used (see Change Outputs in the programming manual), inputs 7 to 10 become disabled. All outputs on the system are negative applied and cannot be altered.

The example below shows how to connect a typical 12V dialler.

Output Connection/Example


PGM AUX+ SPK STB BELL TR B- B+
BELL
AUX
Remove for DP
BUS
BATTERY
Z1 COM Z2 COM +12V Z3 COM Z4 Z5 COM Z6 COM +12V Z7 COM Z8 Z9 COM Z10
D1- D2+ D3 D4 - BAT + GND
All outputs are negative applied
In this example the inputs are programmed as outputs See 'Change Outputs' section in the Programming manual.
GND +12V
1 2 3 4 5 0v +12V
Inputs Auxillary
Example Auto Dialler

Compliance Statement

The EURO **mini** complies with the requirements of the EMC Directive (2004/108/EC) and the Low Voltage Directive (2006/95/EC).

The EURO **mini** complies with TS50131-3:2003

Suitable for use in systems installed to PD6662 (AMD2) at security grade 1 or 2X and environmental class 2.

TS50131-3:2003
EN50131-1
PD6662:2004
Security Grade 2x
Environmental Class 2

Warranty

This product is sold subject to our standard warranty conditions and is warranted against defects in workmanship for a period of 18 months. In the interest of continuing improvement of quality, customer care and design, Castle Care Tech Ltd reserves the right to amend specifications without giving prior notice.

Input Table Appendix

Input Number	Input Type	Input Areas	Description
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Contact Details

Castle Care-Tech Ltd
First Floor
6 Bracknell Beeches
Old Bracknell Lane West
Bracknell
Berkshire
RG12 7BW

Helpdesk:
01344 469499

Opening Hours:
7.00am - 7.30pm
Monday to Friday

E-mail:
support@castle-caretech.com

Website:
www.castle-caretech.com